

John Holdren

John Paul Holdren (born March 1, 1944) is the senior advisor to President **Barack Obama** on science and technology issues through his roles as Assistant to the President for Science and Technology, Director of the White House Office of Science and Technology Policy, and Co-Chair of the President's Council of Advisors on Science and Technology (PCAST)^{[2][3][4][5][6][7]}

Holdren was previously the Teresa and John Heinz Professor of Environmental Policy at the **Kennedy School of Government** at **Harvard University**,^[8] director of the Science, Technology, and Public Policy Program at the School's **Belfer Center for Science and International Affairs**, and Director of the **Woods Hole Research Center**.^[9]

1 Biography

Holdren was born in **Sewickley, Pennsylvania**, and grew up in **San Mateo, California**.^[10] He trained in **aeronautics**, **astronautics** and **plasma physics** and earned a bachelor's degree from the **Massachusetts Institute of Technology** in 1965 and a **Ph.D.** from **Stanford University** in 1970 supervised by **Oscar Buneman**.^{[1][11]} He taught at Harvard for 13 years and at the **University of California, Berkeley** for more than two decades.^[12] His work has focused on the causes and consequences of **global environmental change**, **energy technologies and policies**, ways to reduce the dangers from **nuclear weapons** and materials, and science and **technology policy**.^{[2][9]} He has also taken measures to contextualize the United State's current energy challenge, noting the role that nuclear energy could play.^[12] In 2008, he lived in **Falmouth, Massachusetts**, with his wife, biologist **Cheryl E. Holdren**, with whom he has two children and five grandchildren.^[10]

Holdren was involved in the famous **Simon–Ehrlich wager** in 1980. He, along with two other scientists helped **Paul R. Ehrlich** establish the bet with **Julian Simon**, in which they bet that the price of five key metals would be higher in 1990. The bet was centred around a disagreement concerning the future scarcity of resources in an increasingly polluted and heavily populated world. Ehrlich and Holdren lost the bet, when the price of metals had decreased by 1990.^[13]

Holdren was chair of the Executive Committee of the **Pugwash Conferences on Science and World Affairs** from 1987 until 1997 and delivered the Nobel Peace Prize acceptance lecture on behalf of Pugwash Conferences in December 1995. From 1993 until 2003, he was chair

of the **Committee on International Security and Arms Control** of the **National Academy of Sciences**, and Co-Chairman of the bipartisan National Committee on Energy Policy from 2002 until 2007. Holdren was elected President of the **American Association for the Advancement of Science (AAAS)** (2006–2007), and served as board Chairman (2007–2008).^[9] He was the founding chair of the advisory board for *Innovations*, a quarterly journal about entrepreneurial solutions to global challenges published by MIT Press, and has written and lectured extensively on the topic of **global warming**.

Holdren served as one of President **Bill Clinton's** science advisors (PCAST) from 1994 to 2001.^[2] Eight years later, President **Barack Obama** nominated Holdren for his current position as science advisor and Director of the Office of Science and Technology Policy in December 2008, and he was confirmed on March 19, 2009, by a unanimous vote in the Senate.^{[14][15][16][17]} He testified to the nomination committee that he does not believe that government should have a role in determining optimal population size^[18] and that he never endorsed forced sterilization.^{[19][20][21]}

2 Recent publications

Holdren is the author of over 200 articles and papers, and he has co-authored and co-edited some 20 books and book-length reports, including:^[22]

- *Science in the White House*. Science, May 2009, 567.^[3]
- *Policy for Energy Technology Innovation. Acting in Time on Energy Policy*, (with **Laura Diaz Anadon**, **Max H. Bazerman**, **David T. Ellwood**, **Kelly Sims Gallagher**, **William H. Hogan**, **Henry Lee**, and **Daniel Schrag**), **Brookings Institution Press**, 2009.
- *The Future of Climate Change Policy: The U.S.'s Last Chance to Lead*. Scientific American 2008 Earth 3.0 Supplement. October 13, 2008, 20–21.^[23]
- *Convincing the Climate Change Skeptics*. Boston Globe, August 4, 2008.^[24]
- *Ending the Energy Stalemate: A Bipartisan Strategy To Meet America's Energy Challenges*. Presentation at the **National Academies 2008 Energy Summit**, Washington, D.C., March 14, 2008.^[25]



Holdren at a commercial human spaceflight press conference, 2010

3 Early publications

Overpopulation was an early concern and interest. In a 1969 article, Holdren and co-author Paul R. Ehrlich argued, “if the population control measures are not initiated immediately, and effectively, all the technology man can bring to bear will not fend off the misery to come.”^[28] In 1973, Holdren encouraged a decline in fertility to well below replacement in the United States, because “210 million now is too many and 280 million in 2040 is likely to be much too many.”^[29] In 1977, Paul R. Ehrlich, Anne H. Ehrlich, and Holdren co-authored the textbook *Eco-science: Population, Resources, Environment*; they discussed the possible role of a wide variety of means to address overpopulation. These included forced sterilization, compulsory abortion, contraceptives in the food and water supply, reproductive licenses, and more.^{[20][30][31]}

Other early publications include *Energy* (1971), *Human Ecology* (1973), *Energy in Transition* (1980), *Earth and the Human Future* (1986), *Strategic Defenses and the Future of the Arms Race* (1987), *Building Global Security Through Cooperation* (1990), and *Conversion of Military R&D* (1998).^[22]

4 Awards

- MacArthur Fellow (1981)^[32]
- Fellow of the American Academy of Arts and Sciences (1983)^[33]
- Member of the National Academy of Sciences (1991)^[34]
- Volvo Environment Prize (1993 with Paul Ehrlich)
- Kaul Foundation Award in Science and Environmental Policy (1999)
- Member of the National Academy of Engineering (2000)^[35]
- Tyler Prize for Environmental Achievement (2000)
- 7th Annual Heinz Award in Public Policy (2001)^[36]

5 References

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- [15] Library of Congress , Nomination PN65-07-111, confirmed by Senate voice vote.
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- [17] Koenig, Robert. “President Barack Obama’s Director of the White House Office of Science and Technology Policy Faces Limited Criticism at Confirmation Hearings”, *Seed Magazine*, February 13, 2009.
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6 External links

- Biography at the Office of Science and Technology Policy
- John Holdren collected news and commentary at *The Washington Post*
- Appearances on C-SPAN
- John Holdren collected news and commentary at *The New York Times*
- Works by or about John Holdren in libraries (WorldCat catalog)
- John Holdren at Harvard Kennedy School’s Belfer Center for Science and International Affairs
- Holdren’s Faculty page at Harvard University
- Holdren’s CV at Woods Hole Research Center
- Presidential Address: Science and Technology for Sustainable Well-Being in Science (journal) 25.January.2008 Vol. 319. no. 5862, pp. 424 – 434
- “Interview on Late Night with David Letterman”, “CBS.com”, April 17, 2008.
- “Nominations Hearing for Director OSTP”, Washington DC, February 12, 2009.
- The New Team: John P. Holdren, profile at *The New York Times*

- [John Holdren Speech at the Harvard Kennedy School Forum “Global Climate Disruption: What do we know? What should we do?”](#)
- [Nobel Prize, Pugwash Online, Arms Limitation and Peace Building in the Post-Cold-War World presented by Professor John P. Holdren, Chairman, Pugwash Executive Committee, 10 December 1995, Oslo, Norway](#)
- [Lead essay for *Innovations* journal \(Vol. 1, No. 2\) “The Energy Innovation Imperative: Addressing Oil Dependence, Climate Change, and Other 21st Century Energy Challenges”](#)
- [John Holdren speaking at The American Response to Climate Change Conference, held at The Wild Center.](#)
- [Holdren Urged a ‘World of Zero Net Physical Growth’ in 1995 World Bank Publication.](#)
- [snippets of Holdren answering questions from the House of Representatives](#)

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